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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/343,936	06/30/1999	MINH DUONG-VAN	003997.P002	8489

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EXAMINER

DO, NHAT Q

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 02/24/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/343,936

Applicant(s)

DUONG-VAN, MINH

Examiner

Nhat Do

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on 12/01/03 have been fully considered but they are not persuasive.

Applicant argues that Lin et al fail to disclose the effective serving rate is increased for a time period comprising approximately a round-trip time interval for a packet transmitted in the network (Remarks page 3, 4<sup>th</sup> paragraph).

In reply, Lin et al disclose in figure 4 that when congestion occurs, node SCM increases the buffer size (Fig. 4, step 212). The examiner is in the position increasing the buffer size is increasing the effective serving rate because comparing to the case of without using an auxiliary buffer, data drop (because the buffer is full when congestion occurs) and retransmission is reduced.

Furthermore Lin et al disclose the node CSM sends a stop packet to prevent node CSM-1 from keeping sending data (Fig. 4, step 216). Since the stop packet needs a one-way-trip time to reach the node CSM-1 and the data packet transmitted by the node CSM-1 (right before receiving the stop packet) needs another one-way-trip time to reach the congested node CSM, then it is approximately a round-trip time interval from the time the node CSM sends a stop packet to the time the node CSM receives the last packet from the node CSM-1; therefore the time period for increasing an effective serving rate (by increasing a buffer size) comprises approximately a round-trip time interval for a packet transmitted in the network.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term " a time period comprising approximately a round-trip time interval for a packet transmitted in the network " in claim 1 is a relative term which renders the claim vague and indefinite.

The term " comprising approximately a round-trip time interval " in general is unbounded and not defined by the claim, therefore one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,405,256 to Lin et al.

Lin et al disclose a method comprising temporarily increasing an effective serving rate (by increasing a buffer size) for a router (node CSM) configured to receive packets (from node CSM-1) transmitted through a communications network at a time instant corresponding to an onset of congestion of the router (Col. 3, lines 8-28; col. 4, line 29-38; col. 8, line 46-67; and col. 9, line 1-14).

Lin et al also disclose the congested node CSM sends a stop packet to prevent node CSM-1 from keeping sending data (Fig. 4, step 216). Since the stop packet needs a one-way-trip time to reach the node CSM-1 and the data packet transmitted by the node CSM-1 (right before receiving the stop packet) needs another one-way-trip time to reach the congested node CSM, then it is approximately a round-trip time interval from the time the node CSM sends a stop packet to the time the node CSM receives the last packet from the node CSM-1; therefore the time period for increasing an effective serving rate (by increasing a buffer size) comprises approximately a round-trip time interval for a packet transmitted in the network.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al.

Lin et al. fail to expressly disclose an auxiliary storage area for storing packets that would otherwise be stored in a queue at the router. However, based on what Lin et al. teach: the buffer may include both disk memory and random access memory (Col. 4, line 39-41), it would have been obvious to a person having ordinary skill in the art by the time the invention was made to configure a disk memory as an auxiliary storage area for storing packets that would otherwise be stored in a queue at the router because the auxiliary storage area is only needed on congestion occasions and it is a waste of resources in using expensive queue for a function that is rarely needed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhat Do whose telephone number is (703) 305-5743.

The examiner can normally be reached on 9:00 AM - 6:00 PM (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

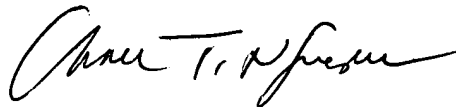
Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ND

Nhat Do  
Examiner  
Art Unit 2663

February 17, 2004.



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